



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,586	02/22/2002	Tatsuo Yajima	219227US2 CONT	7302
22850	7590	06/02/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			STEVENS, THOMAS H	
		ART UNIT	PAPER NUMBER	
		2123		

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/079,586	YAJIMA, TATSUO
	Examiner	Art Unit
	Thomas H. Stevens	2123

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 March 2006.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3,5-9,11 and 12 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-3,5-9,11 and 12 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/05/06.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-3, 5-9, and 11-12 were examined.

### *Section I: Final Office Action*

#### *Claim Objections*

2. The examiner has provided a number of examples of the claim deficiencies below in which the limitations are referring back to a limitation not previously disclosed; however the list of deficiencies may not be all-inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the claim objections.
3. Claim 1 recites the limitation "the steps" and "the other side" in lines 2 and 6, respectively.
4. Claim 2 recites the limitation "the rate of change" in lines 3 and 4, respectively. Claim 3 recites the limitation "the minimum value" in line 3.
5. Claim 7 recites the limitation "the steps" and "the other side" in lines 2 and 6, respectively.
6. Claim 7 recites the limitation "the evaluation" in line 17. Claim 8, recites the limitation "rate of change" in lines 3 and 4.
7. Claim 9, recites the limitation "the minimum value" in line 4.

***Claim Interpretation***

8. Office personnel are to give claims their "broadest reasonable interpretation" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551(CCPA 1969). See \*also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") .... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed .... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process. The examiner interprets the dynamic perspective distortion as the inspection item of a movable body such as an automobile to evaluate the static perspective distortion of an object in a stationary state when it is seen through a sheet of glass, to evaluate the perspective distortion of the object seen through the glass sheet in a state of being driven (specification: pg.3, lines 3-9). Furthermore, examiner interprets the virtual evaluation as the orthogonal grid pattern (specification: pg. 5, lines 7-10).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, 5-9, and 11-12 rejected under 35 U.S.C. 102(b) as being disclosed by Kurumisawa et al. "Development of an Optical Distortion Measuring Technique" (1999) (hereafter Kurumisawa). Kurumisawa discloses new method of measurement and evaluation for an optical distortion of windshield glass (abstract).

Claim 1. A method for evaluating dynamic perspective distortion a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), comprises the steps of: producing a model of three-dimensionally curved shape of transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) having refractive index (inherent to the science of optics: Snell's Law); determining an eye point (pg.302, figure 14 with pg. 303,6-14) at side of the model of three-dimensionally curved shape and a virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) having a plurality of evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) at the other side of the model dimensionally curved shape; observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), three-dimensionally the virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered

pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), extracting perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) as images evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13), obtained by observing through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), a two-dimensional picture image obtained by the observation, and obtaining a plurality distance values of adjacent perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13); determining an optional value be a reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )), among the a plurality distance values, and evaluating the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300, right column, optical distortion equation with figure 5)) of each of the plurality of distance values to the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )).

Claim 2. The method of Claim 1, wherein: the dynamic perspective distortion the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) evaluated based on the rate of change of the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values to the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )).

Claim 3. The method of Claim 1, wherein: the minimum value among the distance values selected as the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)), and the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated based on the maximum value among the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values with respect to the minimum value.

Claim 5. The method of Claim 1, wherein: the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from a glass sheet and a resinous plate.

Claim 6. The method of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) according to Claim 1, wherein: the image seen through the model of three-dimensionally curved shape of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is animation.

Claim 7. A method for correcting three-dimensionally curved shape of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), which comprising: the steps of: step of producing a model of three-dimensionally curved shape of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) having a predetermined refractive index (inherent to the science of optics: Snell's Law); determining an eye point (pg.302, figure 14 with pg. 303,6-14) at a side of the

model of three-dimensionally curved shape and a virtual plurality of evaluation the model of three-evaluation pattern having a points at the other side dimensionally curved shape; observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), the virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), extracting perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) as images evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13), obtained by observing through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), in a two-dimensional picture image obtained by the observation , and obtaining a plurality of distance values between a plurality adjacent perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13); the determining an optional value be a reference value (pg.300, right column, optical distortion equation with figure 5: Imin)), among these distance values; evaluating the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300, right column, optical distortion equation with figure 5)) of each of the plurality of distance values the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)), correcting the three-dimensionally curved the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) according to the evaluation.

Claim 8. The of Claim 7, wherein: the dynamic perspective shape distortion the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) evaluated based on the rate of change of the ratios (pg.300, right column, optical distortion equation with figure 5) of the distance values the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)).

Claim 9. The method of Claim 7, wherein: the minimum value among the distance values is selected as the reference value (pg.300, right column, optical distortion equation with figure 5: Imin)), and the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated based on the maximum value among the ratios (pg.300, right column, optical distortion equation with figure 5) the distance values with respect to the minimum value.

Claim 11. The method of Claim 7, wherein: the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from a plate glass sheet and a resinous plate (part of the windshield).

Claim 12. The method of Claim 7, wherein: the image seen through the model of three-dimensionally curved shape of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is animation-displayed.

***Section II: Response to Applicant's Arguments (Previous Office Action)***

***102(b)***

11. The applicant is thanked for addressing this issue. The amendments to the claims by way “a plurality of distance values” and “a plurality of adjacent perspective points” is not persuasive since the these limitations were originally denoted as plural entities (i.e., “values”, “points”). Furthermore, theses amendments do not appear to provide a new and unexpected result but are a duplication of events (see *MPEP 2144.04, Section VI. B. Duplication of Parts; In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)). Rejection stands.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

May 24, 2006

TS



WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER